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Claims

1. A medicament comprising a plurality of coated drug particles, each having an average particle size of less than 500 μm in diameter, the surface of said particles comprising at least a first layer of biodegradable and biocompatible polymeric coating particles, wherein the average thickness of said coating layer is between 1 and 500 nm, the coated drug particles being obtainable through a process comprising depositing said polymeric coating particles onto the surface of host drug particles by a process comprising pulsed laser ablation.

2. The medicament according to claim 1, wherein said coating particles are selected from the group consisting of PLA, PGA, PLGA and cellulose compounds.

3. The medicament according to claim 1 or 2, wherein said drug particles have an average particle size of less than 400 μm in diamter, preferably less than 300 μm, further preferred less than 200 μm, further preferred less than 100 μm, further preferred less than 50 μm, further preferred less than 10 μm, further preferred less than 5 μm, further preferred less than 1 μm, further preferred less than 0.1 μm.

4. The medicament according to any preceding claim, wherein the average thickness of said coating layer is between 1 and 400 nm, preferably 2 and 300 nm, further preferred 3

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and 200 nm, further preferred 4 and 100 nm, further preferred 5 and 50 nm.

5. The medicament according to any of the claims 1 to 3, wherein the average thickness of said coating layer is between 50 and 500 nm, preferably 100 and 500 nm, further preferred 150 and 500 nm, further preferred 200 and 500 nm, further preferred 300 and 500 nm.

6. The medicament according to any preceding claim, wherein the average size of the polymeric coating particles is less than 50 nm in diameter, preferably less than 40 nm, more preferred less than 30 nm, more preferred less then 20 nm, more preferred less than 10 nm, more preferred less than 5 nm.

7. The medicament according to any preceding claim, wherein said polymeric coating particles are applied to the surface of said drug particles to form a continuous layer.

8. The medicament according to any preceding claim, wherein said polymeric coating particles are applied to the surface of said drug particles to form a discontinuous layer.

9. The medicament according to any preceding claim, wherein said coated drug particles comprise an anti-allergic, an antibiotic, an anti-inflammatory, or a bronchodilatory drug.

10. The medicament according to any preceding claim, wherein said drug particles are selected from the group consist-

ing of budesonide, triamcinolone acetonide, and rifampicin.

11. A pharmaceutical formulation comprising the medicament of any preceding claim.

12. The formulation according to claim 11, comprising from 0.01 % to 10 % by weight of said medicament relative to the total weight of the formulation.

13. The formulation according to claim 11 or 12, containing from 0.1 % to 1 % by weight of said medicament relative to the total weight of the formulation.

14. The formulation according to any one of claims 11 to 13, comprising a respirable fraction of from about 20 % to about 50 % or more by weight of said medicament.

15. The formulation according to any of claims 11 to 13, further comprising a second medicament.

16. The formulation according to claim 15, wherein said second medicament is a particulate medicament.

17. The formulation according to claim 15, wherein said second medicament comprises a medicament in accordance with any one of claims 1 to 10.

18. The formulation according to any one of claims 11 to 17, comprising a first bronchodilatory medicament and a second medicament selected from the group consisting of an anti-inflammatory agent, a bronchodilatory agent, an an-

tibiotic agent, and an anti-allergic agent.

19. The formulation according to any one of claims 11 to 18, further comprising a vehicle suitable for aerosol administration of said formulation.

20. The formulation according to claim 19 further comprising a propellant.

21. The formulation according to claim 20, wherein said propellant is selected from the group consisting of a fluorocarbon and a hydrogen-containing chlorofluorocarbon.

22. A therapeutic kit comprising the medicament of any one of claims 1 to 10, or the formulation according to any one of claims 11 to 21, and instructions for the administration of said medicament.

23. The therapeutic kit of claim 22, further comprising an aerosol delivery apparatus or a medical device suitable for pulmonary administration of said medicament.

24. The use of coated drug particles as defined in any of the claims 1 to 10 or of a formulation according to any of the claims 11 to 21 for the manufacture of a medicament for treating a respiratory disorder or a pulmonary infection in a human patient.

25. A method of preparing coated drug particles as defined in any of the claims 1 to 10, the method comprising depositing onto the surface of a host drug particle at least a

first layer that comprises a plurality of polymeric coating particles by a process comprising pulsed laser ablation under vacuum.

26. The method according to claim 25, wherein said pulsed laser ablation comprises a laser having a wavelength of about 240 to about 280 nm.

27. The method according to claim 25 or 26, wherein said pulsed laser ablation comprises a laser having a wavelength of about 248 nm.

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